PLANNING THE PHYSICAL DEVELOPMENT
OF THE
UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA

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I INTRODUCTION

To its students, faculty, staff, and visitors the University of Alberta presents at Edmonton a campus rich in its natural physical beauty and its architectural heritage. The spaciousness that meets the eye, the handsome permanent structures, and the well maintained grounds present a physical environment that is expressive of the stature of the institution.

If the campus were not to grow, these values could be retained with relatively little effort. However, with the anticipated growth to 6000 students, it becomes mandatory that each of the component elements of the campus be considered and planned to the end that these values can not only be safeguarded but even enhanced. It appears appropriate then that each of these elements be analyzed as to the part it must play in the coordinated development of the campus of the future.

II LAND NEEDS AND LAND USE

The present land for university use is adequate for the anticipated future enrollment of 6000 students, only if no further encroachment by Province buildings is made north of 87th Ave. Of primary importance is the need of a coordinated long range plan for the University, the Hospital and the Province in which long range land needs are difined. No exigencies of the moment should be permitted to violate this plan without serious consideration.

III OPEN SPACES

There should be adequate space not only for the buildings required, but equally important, to permit the retention of the spaciousness which characterizes the present campus, and for the interplay of large and small spaces between and around buildings. The campus has at present several large open spaces such as the Quad and the area east and north of the Arts Building. However these spaces are lacking definition, to the result the eye is carried on, not by a vista to a point of interest, but rather to a meaningless horizon. Without losing these spaces, they should be defined by structures or planting and woven into a pattern of large and small spaces so that the pedestrian is offered a stimulating yet restful series of visual experiences. Even the small spaces normally resulting between buildings can be given qualities of their own, perhaps privacy or special color in planting, or as small courts to meet, talk, and sit. A series of large lawn covered spaces with trees is invaluable, but they need the play of variety in size and treatment that makes each area a refreshing experience as it is encountered.

Unity and cohesion of the campus structures and grounds, understandably not achieved as yet, is an important goal which can be achieved not only by judicious placing of buildings, but equally by proper development of open spaces.

IV APPROACH TO THE UNIVERSITY

One of the most rewarding experiences to the visitor can be his first impression of the campus. At present he is offered several fairly direct approaches, none of which present the campus at its potential best. It would appear that with the completion of the new bridge and the growing importance of 87th Ave., that 114th Street should be developed as an important approach. The buildings and planting along 114th St., whether they be Province, Hospital, or University, should be so organized and composed that a vista can be created to the Quad. Saskatchewan Drive, with its excellent view of the river, should be developed as a scenic approach to the east side of the campus and the north end of the campus should not turn its back to it in fact or appearance. This drive is a natural limit for campus expansion and development.

V BUILDINGS

A. GENERAL

The campus has in several areas an orderly dignity and monumentality that is appropriate. These are most nearly achieved in the buildings groups where the spaces and buildings are interrelated to achieve unity rather than in the individually monumental buildings.

The present grouping and location of academic buildings, residence halls, and service or auxiliary buildings, are fundamentally sound and their present relationships should be maintained in future expansion. The most feasible direction of expansion for academic buildings is south to 87th Ave., between 112th and 116th Streets, and north to Saskatchewan Drive east of the line of the present residence halls. The Quad, with the exception of a building defining it at its north and south ends, should remain the fine open space it is.

The residence halls can expand to the west of the present three halls where a student community environment can be created with ready access to the city by the new bridge

The Works Building is well located but care must be taken in its growth to prevent a cluttered service yard appearance. Planting should be initiated to screen the kind of development which is natural to this service function.

B. EXISTING BUILDINGS

1. Arts Building

This building is well suited to general classrooms and offices for Arts, Social Sciences and similar disciplines. Present administrative offices should be removed to a new building designed for this purpose to permit this space to be converted and reassigned to general classrooms. The Arts Building is not suited to the needs of a modern Physics Department. This department, when its needs can be ascertained, should be provided new flexible space adequately equipped with necessary services.

2. Medical Building

The Medical Building is presently, and will be increasingly in the future, called upon to provide the kind of space which it can only do with difficulty. The complex and expensive demands of the departments housed here point to new building space which does not appear practicable in entirety. It is apparent that this building cannot house in their entirety all its present occupants. Chemistry, Zoology and Entomology should be moved to new space to permit the necessary expansion of the remaining departments. Chemistry is the most demanding of these and its retention in the Medical Building can only be at great expense for adequate facilities or by reduction of facilities and safety.

Continuing alterations and renovation to its interior will undoubtedly be the fate of this building, but these will be justified since the only alternatives are obsolescence or expensive new space.

3. North and South Labs.

Although not as handsome and useful buildings as those noted above, these are worthy of retention, improvement and alterations. They contain between them a court which is potentially a student center worthy of landscaping as noted in another section. The departments now in North and South Labs which are most closely associated to those in the Arts Building should be moved to the latter building upon the availability of additional space.

4. Power Plant Building

This facility is well located in its central position but the building assumes an undesirable importance in the visual group of the Arts, Medical and Library Buildings. The temporary expansion of Electrical Engineering in the Power Plant Building appears justifiable because of the minor alterations presently required. Care must be exercised to avoid incremential development which may present in a few years the strong obstacle of investment in this space and the cost of relocation of the department.

5. Library

The Library is a fine building, inside and out with commendable adherence to the architectural qualities of the earlier buildings. In addition to its expansion possibilities to the south, it may become advisable to initiate a branch library in the area of Biological Science, Chemistry, Physics and Engineering as the campus grows in physical dimensions.

6. Agriculture Building

This is an efficient, economical, and handsome building which can be expanded by increments to the south and west to become as large a complex as the Medical and Engineering Buildings.

7. Agricultural Building Extension

The housing in this complex of Geology, Botany, Zoology, Entomology, and other related sciences is appropriate both as to compatability of occupant, type of space, and academic relationships. A corollary to this is the ability to retain the more central locations for general classrooms and offices serving the larger number of students. A combined teaching museum would appear to be an effective and economical possibility.

8. Engineering Building

This is a good beginning of a series of separate or connected buildings fronting on the Quad. These sites north of Engineering Building are the most central and academically valuable remaining, and should be carefully assigned in a long range plan. The desire to attain immediate proximity for new buildings should be carefully weighed against the needs for expansion of existing units in this area, i.e. Engineering, Humanities, Social Sciences and their attendant classrooms, offices and research facilities.

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9. Residence Halls

These are useful buildings whose fight against obsolescence can go on for many years. All possible measures for fire protection inside and out should be continued to be taken. Inadequate or unsafe electrical wiring, a cause of many losses in this type of building, should be corrected.

10. Students Union Building

This attractive building has excellent facilities and will rapidly overcome its present apparent remoteness as the campus expands to it and its facilities are completed and their values realized.

11. Temporary Buildings

These, as on many campuses, present a quandry as to their retention and consequent cost of maintenance, alteration, and rehabilitation, or their demolition when space is at a premium. No single answer exists but one strong word of caution is in order. Under no circumstances should these buildings, which must be considered unimportant in the life of the campus, be permitted to compromise sound, orderly development of the campus.

12. St. Joseph's and St. Stephen's Colleges

These structures are to the unknowing eye a visual part of the campus and will continue to be so. They should be coordinated into the development plan of buildings and planting.

13. University Hospital

As mentioned above, it should have its long range needs defined, delineated, and coordinated with the campus development plan. A superficial and perhaps unfair look at the several buildings in this group gives an impression of a lack of orderly development.

14. Education Building

Because of its remoteness from the campus it might well be considered for use by the Province as a unit of its hospital group and the University be granted funds to construct comparable academic facilities on the central campus.

15. Aberhart Memorial Hospital Group

These buildings are of a high quality of design and yet raise the inevitable question of why was it necessary to create the discord in color with the University buildings. Unquestionably these buildings, as well as those in the city, must reflect in their design the function and the demands of their use programs, but these can be achieved without sacrifice of harmony of color, mass and proportion.

C. FUTURE BUILDINGS

The campus is singularly fortunate in having its architectural heritage in terms of a vocabulary of material, color, scale and proportions that should not tie the hands of an able architect.

1. Agriculture Extension

Here, as in other future buildings, it would be advisable to consider the construction of general purpose space and a large building comples, built in increments if necessary. This would permit more flexibility of use and assignment than the more expensive separate buildings which tend to restrain the unforeseeable difference in expansion of departments.

2. Administration Building

As a corollary to the development of 114th St. as a major approach to the campus, it appears appropriate that a new administrative unit be constructed at the south end of the Quad. A Structure here, approximately in line with the south end of Engineering would be the termination of a vista up 114th St., give definition to the Quad at this end, and unify the present buildings with the Students Union Buildings. It would be a natural point of arrival for the public coming to administrative offices as well as an intermediate point in passage to the Union, the Residence Halls and the Physical Education and intramural facilities. This building might well include some classrooms which could serve as expansion for administrative offices as the future needs may require. (See General Classroom Building below.)

3. Center Wing of Medical Building

This wing is a reasonable expansion of the Medical Departments as is the space in this building made available with the removal of Chemistry, Zoology and Entomology.

4. Extension of Engineering

Expansion to the north for Electrical and Mechanical Engineering Physics is appropriate. Here, also, fewer larger buildings would provide economy and flexibility. It may be advisable to provide a central shop, instrument facilities, and photographic equipment in this complex to serve the science departments.

5. Women's Residence

A location southwest of the tennis courts and Pembina Hall would place it within the residence group, near the Union, and would bring further unity of building masses and groups as mentioned for the Administration Building.

6. Household Economics Building

Depending on its direction in teaching and research it could be a part of the Sciences Buildings at the north end of the campus or a part of a general purpose building north of the Arts Building.

7. Physical Education

The proposed location of a swimming pool and gymnasium south of the Students Union Building is sound. A new Field House-Ice Arena would be well located either on the site of the present rink or west of the drill hall. The fields and track might well be retained on their present academic building space expansion for such future schools or colleges as Law, Architecture, Education or for research centers whose proximity to the campus would be sufficiently advantagious academically to warrant this site. It is recommended that, in the coordinated plan with the Province buildings, as area sufficient for necessary fields and track be reserved south of 87th Ave. and west of 114th Ave.

8. General Classroom Building

Departmental needs will tend to encroach on the existing classrooms in the several buildings. It will probably be desirable to build a building for classroom purposes and permit expansion of the departments into contiguous space in the buildings they occupy. This building warrants a central location and would be well sited on the east side of the Quad opposite Assiniboia Hall. Classroom units here with Physics and Engineering to its south, Sciences to the northeast and Chemistry to the north could serve all these departments. There is economy in not taking up space in these more expensive complex buildings with the simpler classroom units.

9. Fine Arts and Museum

These would be well located around the forecourt of the Arts Building, benefitting from that splendid open space and being readily accessible to visitors.

VI GROUNDS AND LANDSCAPING

The principal physical elements of a campus are its buildings, its open spaces, and its planting. The latter two can play a very important part in achieving unity and cohesion and should be given attention equal to that given buildings. A skillful interplay of spaces of varying sizes and treatment, well defined and interconnected with pleasant walks or arcades can offer an aesthetic stimulus that should be capitalized upon.

In addition to the fine spaces such as the Quad, the forecourt of the Arts Building, and the area between North and South Labs, there should be created such a space south of Pembina Hall. The new Administration Building, Students Union Building, New Women's Residence and Pembina Hall would define and benefit from this open area. This space would also relieve an otherwise long line of buildings along 89th Ave.

The campus, now experiencing some replanting, is lacking somewhat the vigorous scale and color of the evergreens and large deciduous trees which are, to the visitor, representative of the province. A bold scheme of planting, as though buildings were placed in a natural site, rather than trees planted around buildings or at the corners of lawns, would bring the campus into harmony with its surroundings and in scale with the magnificant river and its heavily wooded banks.

The Quad and its surrounding buildings can be even more pleasing to the eye if a natural grouping of trees and shrubs carried through this space such that there would be a variety of views of the buildings and the Quad. From some points the Quad and each of the buildings should be seen in their entirety, from others, glimpses of buildings through trees should give refreshing variety.

If 114th Street becomes an important approach it should be planted, not in hard lines, but informally, well back from the street to avoid a tunnel or telescope quality. The passer-by should sense a focal point of the University at the end of this street.

VII ROADS; WALKS, PARKING

Vehicular circulation through the campus for service, fire protection, and access to parking areas is necessary. This should not be achieved at the expense of pedestrian circulation. The roads might well be less severely geometrical. Curb parking should be prohibited wherever aesthetically unpleasane, or where pedestrians walking between cars create a safety hazard. Where need for vehicular access is minor, walks of ample width may serve in lieu of roads.

Pedestrian walks should have precedence over vehicles. They should be of permanent materials and laid out in such a manner as to guide the pedestrian where he wants to go in an interesting way rather than always following the axiom about the straight line and two points. Informal, carefully studied lines of walks and good planting are natural collaborators in showing the campus at its best.

The need for parking may be deplored but it can't be ignored. The cars of the limited few who may be granted the privilege of parking within the center part of the campus should not be permitted to deprive the students and staff of the safety and enjoyment of the campus which is their right. Cars, where they must be on campus, should be parked in areas removed from pedestrian walks, screened with planting if possible, and coordinated in a plan of development of open spaces such as to give each a place without conflict.

VIII MAINTENANCE

In our concern for the future we must not lose sight of the importance of maintenance of the assets on hand. The rigorous weather is having its effect on the exterior of the older buildings and some of the walks and paving. This should be adequately recognized in future annual improvements or operating budgets. Similarly, obsolescence is taking a continuing toll on the effectiveness of the interior of the buildings. There must be a judicious distribution of funds, whatever their extent, to achieve the maximum total usefulness of the physical plant not only in new space but in existing space as well.

IX PLANNING PROCEDURE

Academic planning, which defines the nature and character of the work of an institution, its ideals, and its aspiration, is of primary importance. The Architect planner can then endeavor to develop a physical plant integrated with the academic requirements to produce an environment and the facilities to express and assist in the achievement of these goals.

Frequently the inability to make decisions in physical development stems from the lack of definition of academic objectives and plan. The present Space Survey Committee will be handicapped in making its recommendation by a lack of advice on the composition of the University in the several stages of its future.

The basing of space needs on the assumption that each department will grow at the same rate, and that the increase in complexity in existing fields and the introduction of new fields will be at the present inequities. Each department's needs should be drawn up independently, reviewed, and modified, if necessary, by a group capable of representing all interests. These needs should then be coordinated into a program and plan of development. Such a plan could be in terms of five or ten or more years, but it should be in balance at all times. Such a procedure would define the scope and composition of Household Economics, Physics, Physical Education and permit their resolution in a physical plan. It could bring to light new disciplines or needs which are not departmental in origin.

This academic plan, when approved, should then be expressed in a physical plan. Close liaison must be maintained between the groups responsible for these plans, and re-examination made of building needs, sites, and general campus development as changes in requirements may occur.

As an individual need for building or other improvement approaches urgency, and prior to its submission to the funding agency for appropriation, adequate research by University staff, with the advice of students where meaningful, should be undertaken. In the final analysis a building is only as effective as the program upon which it is based and adequate study at this stage is time well spent. It may well be better to have these individual projects guided by a small group separate from the Space Survey, the Academic Advisory, or Campus Development groups, since the problems are more time consuming and special in nature. These individual projects should be reviewed by the latter groups to insure adherence to the objectives of the entire University.

X SUMMARY

The campus is at an important stage in its development, a stage which requires a complete analysis and definition of its aims and aspirations, the nature and character of its work, and the scope and the composition of its elements.

The present sound procedures should be augmented, if necessary, to permit resolution of these elements into an academic plan difficult as it may be to define

A physical development plan, expressive of this academic program, should be prepared with the fullest collaboration of the faculty, staff, and administration. Such a plan must be coordinated with the development plan of the Province buildings and the University Hospital.

The following are the personnel and procedures involved in a typical building project on the Berkeley Campus of the University of California:

Chancellor---Chief administrative officer for the campus.
Academic Advisory Committee---(AAC) Advisory to the Chancellor on academic planning.
Buildings and Campus Development Committee---(BCD) Advisory to the Chancellor on physical planning matters, has as principal subcommittees:
Building Needs and Location (BNL)
Space Assignment
Building Sub-Committee (BSC) for each new project.
Office of Architects and Engineers---(A and E) Responsible through channels for all capital improvements. Consultation is mandatory with the Chancellor through his advisory committees. Executive architects appointed by the Regents for specific projects, are directed and instructed by A and E.

1. Building needs are solicited from the department or unit by BNL.
2. BNL accepts or modifies needs statement in light of AAC recommendations.
3. Priority of need is assigned by BNL, BCD, Chancellor and Regents.
4. Previously selected site is reviewed by A and E and BNL and reaffirmed or new site is proposed by A and E and approved by BNL, BCD, Chancellor, and Regents.
5. For projects high on priority list, building subcommittees are appointed to prepare, with the advise of A and E, a detailed program of requirements within the scope of the project as recommended by Chancellor. Cost estimate by A and E.
6. Request for funds to State Legislature includes program, schematic plan, cost estimate of building, equipment and all other project costs, and construction outline prepared by A & E.
7. Upon the appropriation of funds, executive architect is appointed by Regents.
8. Preliminary studies are prepared under the control of A and E, subject to BSC program requirements.
9. Preliminary plans of building and site development approved by BSC, Space Committee, BNL, BCD, Chancellor and Regents.
10. Working drawings and specifications are prepared with continuous close liaison with, and scrutiny by, BSC.
11. Bidding documents prepared by A and E. Bids solicited, summarized, project budgets prepared and recommendation for awards of contract by A and E.
12. Regents award contracts.
13. Contracts prepared, executed, and recorded under direction of A and E. Changes requested by BSC are made if at all justifiable and possible.
14. Construction is inspected, budgets and changes controlled by A and E.
15. Equipment and furniture procured by A and E with assistance of BSC. Standard units used wherever possible.